

Math (Science)

Group-I

Paper

Time: 20 Minutes

(Objective Type)

Max Marks: 1

Note: Four possible answers A, B, C and D to each question are given. The choice which you think correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark for that question.

1-1-  $\begin{bmatrix} \sqrt{2} & 0 \\ 0 & \sqrt{2} \end{bmatrix}$  is called \_\_\_\_\_ matrix.

- (a) Zero (b) Unit  
(c) Scalar  $\sqrt{}$  (d) Singular

2-  $4^{2/3}$  with radical sign is \_\_\_\_\_.

- (a)  $\sqrt[3]{4^2}$   $\sqrt{}$  (b)  $\sqrt{4^3}$   
(c)  $\sqrt[2]{4^3}$  (d)  $\sqrt{4^6}$

3-  $\log e =$  \_\_\_\_\_, where ( $e \approx 2.718$ ).

- (a) 0 (b)  $\infty$   
(c) 1 (d)  $0.4343 \sqrt{}$

4-  $(\sqrt{a} + \sqrt{b})(\sqrt{a} - \sqrt{b})$  is equal to:

- (a)  $a^2 + b^2$  (b)  $a^2 - b^2$   
(c)  $a - b \sqrt{}$  (d)  $a + b$

5- The square root of  $a^2 - 2a + 1$  is \_\_\_\_\_.

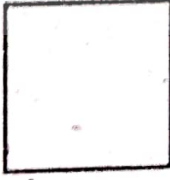
- (a)  $\pm(a + 1)$  (b)  $\pm(a - 1) \sqrt{}$   
(c)  $a - 1$  (d)  $a + 1$

6- H.C.F of  $x^2 - 5x + 6$  and  $x^2 - x - 6$  is \_\_\_\_\_.

- (a)  $x - 3 \sqrt{}$  (b)  $x + 2$   
(c)  $x^2 - 4$  (d)  $x - 2$

7- If  $x$  is no larger than 10, then:

- (a)  $x < 10$  (b)  $x > 10$   
(c)  $x \geq 8$  (d)  $x \leq 10 \sqrt{}$

- 8- If  $(x - 1, y + 1) = (0, 0)$ , then  $(x, y)$  is:  
(a)  $(1, -1)$  ✓ (b)  $(-1, 1)$   
(c)  $(1, 1)$  (d)  $(-1, -1)$
- 9- Distance between the points  $(0, 0)$  and  $(1, 1)$  is:  
(a) 0 (b) 1  
(c)  $\sqrt{2}$  ✓ (d) 2
- 10- Bisection means to divide into \_\_\_\_\_ equal parts.  
(a) 2 ✓ (b) 3  
(c) 4 (d) 5
- 11- Medians of a triangle are:  
(a) Different (b) Concurrent ✓  
(c) Equal (d) Same
- 12- The right bisectors of the sides of an acute triangle intersect each other \_\_\_\_\_ the triangle.  
(a) Inside ✓ (b) Outside  
(c) On the hypotenuse (d) On the base
- 13- A line segment has exactly \_\_\_\_\_ midpoint.  
(a) Two (b) One ✓  
(c) Three (d) Four
- 14- Area of the given  figure is:  
4 cm  
(a)  $16 \text{ cm}^2$  ✓ (b) 8 cm  
(c) 4 cm (d)  $12 \text{ cm}^2$
- 15- One angle on the base of an isosceles triangle is  $30^\circ$ . What is the measure of its vertical angle \_\_\_\_\_?  
(a)  $90^\circ$  (b)  $30^\circ$   
(c)  $60^\circ$  (d)  $120^\circ$  ✓